Int J Life Cycle Assess (2009) 14:1–7
DOI 10.1007/s11367-008-0051-7

Our plans and expectations for the 14th volume 2009 of Int J Life Cycle Assess

Walter Klöpffer · Almut B. Heinrich

Published online: 19 December 2008

Dear Readers,
It is our pleasure to present, in the first issue of the 14th volume 2009, the planned activities and expectations of our Subject Editors and Associate Subject Editors. They work as submission editors and referees in the ESS and are the backbone of our journal, together with all the referees. The referees are recruited from the database of Int J Life Cycle Assess, which provides editors, authors, and advisors/referees (the latter from also outside the editorial board and the authorship).

On this occasion, we wish you a healthy and successful 2009. Be assured that your contributions in the form of papers, comments, suggestions, and criticisms are always highly welcome.

Subject Editors (http://www.scientificjournals.com/sj/lca/editors)

- Baitz, Martin—Data availability, data quality in LCA
- Ciroth, Andreas—Uncertainties in LCA
- Finkbeiner, Matthias—Carbon footprinting
- Gaillard, Gérard—LCA for agriculture
- Hauschild, Michael Z.—LCIA of impacts on human health and ecosystems
- Huijbregts, Mark—Nontoxic impact categories associated with emissions to air, water, soil
- Hunkeler, David—Societal life cycle assessment
- Jungbluth, Niels—LCA for energy systems and food products
- Koehler, Annette—Water use in LCA
- Milà i Canals, Llorenç—Land use in LCA
- Pennington, David—EU life cycle policy and support
- Rebitzer, Gerald—Life cycle management
- Schweinle, Joerg—Wood and other renewable resources
- Suh, Sangwon—Input–output and hybrid LCA

Associate Subject Editors (http://www.scientificjournals.com/sj/lca/editors)

- Kim, Seungdo—LCA for agriculture practices and biobased industrial products (Associated to Gérard Gaillard)
- Matsuno, Yasunari—Life cycle management (Associated to Gerald Rebitzer)
- Nakamura, Shinichiro—Input–output and hybrid LCA (Associated to Sangwon Suh)
- Nebel, Barbara—Wood and other renewable resources (Associated to Jörg Schweinle)
- Pant, Rana—LCIA of impacts on ecosystems (Associated to Michael Hauschild)
- Rosenbaum, Ralph K.—Environmental fate and human exposure of chemicals; LCIA of impacts on human health and ecosystems (Associated to Michael Hauschild)
- Schebek, Liselotte—LCA for energy systems (associated to Niels Jungbluth); LCA for biofuels (associated to Joerg Schweinle)
- Schmidt, Wulf-Peter—Life cycle management (Associated to Gerald Rebitzer)
- Swarr, Thomas—Life cycle management (Associated to Gerald Rebitzer)

Contributors: Baitz, Martin • Ciroth, Andreas • Finkbeiner, Matthias • Gaillard, Gérard • Kim, Seungdo • Hauschild, Michael Z. • Hunkeler, David • Jungbluth, Niels • Schebek, Liselotte • Koehler, Annette • Milà i Canals, Llorenç • Pennington, David • Rebitzer, Gerald • Matsuno, Yasunari • Schmidt, Wulf-Peter • Swarr, Thomas • Schweinle, Joerg • Nebel, Barbara • Werner, Frank

W. Klöpffer
Int J Life Cycle Assess, LCA Consult & Review,
Am Dachsberg 56E,
60435 Frankfurt/M, Germany
e-mail: walter.kloepffer@t-online.de

A. B. Heinrich (✉)
c/o Verlagsgruppe Huethig Jehle Rehm GmbH,
Im Weiher 10,
69121 Heidelberg, Germany
e-mail: almut.heinrich@hjr-verlag.de

- Werner, Frank—Wood and other renewable resources (Associated to Jörg Schweinle)

Baitz, Martin—Data availability and data quality in LCA

Dr. Martin Baitz, PE Europe GmbH, Manager, Hauptstr. 111–113, 70771 Leinfelden-Echterdingen, Germany; e-mail: m.baitz@pe-international.com

I would like to see 2009 as a year in which "Data Availability and Data Quality" is discussed in our journal in case studies and, hence, improved towards the keywords "Consistency, Relevancy, and Continuity" of LCA data. The goal means improving the availability of high-quality LCA data.

This involves that just making more data available is not identical to the availability of better-quality data. Newly available data can be of any, maybe unknown, quality, i.e., the data material can be nonrepresentative, incomplete, or imprecise. This even if the name of the data set seems to fit in the considered case of my study.

A simple question is to answer: Does the data set represent the reality of my supply-chain and my products' end-of-life reality? Ideally, this answer should already be given in the documentation of the data set.

Transparency—often misunderstood as a kind of "quality-label"—is not synonymous with quality and cannot give the LCA practitioner any guarantee. Only a dedicated technology expert can judge the appropriateness, completeness, and precision of the inventory because, normally, the practitioner has no time or dedicated technology knowledge in all of the life-cycle process steps. Trust in the data provider may be a good starting point. However, only independent review mechanisms can provide the required guarantee to the user (who still remains responsible to correctly select and use the quality-assured data). In a research context, transparency is an important aspect, in some cases, maybe even more important than the quality of the data. However, in professional applications, transparency often hinders the availability of the required primary (i.e., industry) quality data, due to the well-known confidentiality problems.

I do not want to argue against "transparency"—reviewers need to see the true unit-process data—and can see the benefit of giving access to unit-process data in specific cases (e.g., in parameterized data of transport or waste treatment technologies where users need to adjust their operating parameters). However, I would like to make clear that "transparency" per se is not an indicator for quality; notably, it reduces the willingness of real-world process data owners to share their data. Even if unit-process data material is made accessible, we need officially released LCI cradle-to-gate or -grave data from industry to ensure we use the correct data in a specific context.

To move LCA to the right place, namely, to real-world decision support in industry and public policy, we need to accept realities. The real world needs quality data and good case studies that help in capacity building. Case-study papers using LCA data in an "I take what I get" approach should be an extinguishing species in our journal, at least if we see LCA as a tool for real-world decision support.

Further, I would like to see papers in our journal reporting about experiences with industry- and policy-relevant quality LCI data that are database- and software-independent. This means foremost the data of the upcoming ILCD Data Network and of other predominantly industry-based databases such as, e.g., the Japanese, Thai, or US National databases. Globally, there are some relevant developments on the way that can be expected to lead towards an increase in consistent and quality-assured LCI data.

Data quality is best improved by developing and implementing mechanisms that support both quality guarantees (via external, qualified reviews) and meet confidentiality needs of industry to improve the access to real-world data. Together with policy and private drivers (e.g., carbon labeling), it may be possible to provide wide access to consistent quality data in the near future. Reporting experiences in Int J Life Cycle Assess may help to improve the vision of guaranteed "Data Availability and Data Quality."

Ciroth, Andreas—Uncertainties in LCA

Dr. Andreas Ciroth, Managing Director, GreenDeltaTC GmbH, Raumerstr. 7, 10437 Berlin, Germany; e-mail: ciroth@greendeltatc.com

"Uncertainties in LCA" was the first special-subject section created in 2004 in Int J Life Cycle Assess, and it is a pleasure and honour to "chair" it as an editor since then.

Uncertainties cross-cut almost all aspects of Life Cycle Assessment, and they are relevant for life cycle costing and for social impacts along the life cycle of products as well. The situation is even more interesting since uncertainty management frequently has two sides—first, trying to deal with uncertainty (model, analyze, calculate, communicate), and second, trying to reduce uncertainty, starting from those points where it matters most, in order to achieve robust, reproducible results, suitable for decision support.

Therefore, papers addressing questions such as data collection and uncertainty management, process modelling, inventory calculation and uncertainty management, impact assessment and uncertainties, and communication and decision support and uncertainties, are most welcome for this section.

So far, this section has been "author-driven." Articles that appeared here are the outcome of articles that were

submitted and accepted after peer review. While I (might) have my personal preferences and research interests, these should not interfere with papers that are published here. I did my best to ensure this for the past, and will do so in future.

Having said that, I think we have seen enough "case studies" where assumed uncertainty input data lead to uncertainty output data that are presented without further reflecting on reasons for differences in the output data, or on use cases for such produced output data in comparison with distinct data—measuring input uncertainties is very rarely done, though, and the way of understanding uncertainties is also rarely addressed and, I would say, not fully understood today.

Further, I would be happy about papers dealing with questions such as: How does narrowing the choice of methods in LCA impact uncertainties, and is this beneficial? How can an overarching uncertainty management for sustainability assessment look like, covering peculiarities in environmental, flow, cost, and social models; and in more general terms: How can we bring sound uncertainty management, with its two sides mentioned above, into practical LCAs. In order to make practical LCAs scientifically based, reproducible, and a robust basis for decision support.

Finkbeiner, Matthias—Carbon footprinting

Prof. Dr. Matthias Finkbeiner, Technical University Berlin, Institute of Environmental Technology, Secretariat Z1, Straße des 17. Juni 135, 10623 Berlin, Germany; e-mail: matthias.finkbeiner@tu-berlin.de

The big issue in 2009 will be carbon footprinting. The first national standard (BSI PAS 2050) has just been published, and the international standardization activities of ISO and WBCSD/WRI will be in full swing in 2009. From the perspective of Int J Life Cycle Assess, there are fairly obvious pros and cons to deal with this issue. The opportunity given concerns increased market relevance, and the threat lies in the monophthalmia of this "castrated type" of LCA called CFP. However, climate change is a serious disease that needs bitter medicine. If CFP is the medicine, we must make sure that the adverse effects are clearly disclosed in the package leaflet. In that sense, I look forward to opening a carbon footprinting section in the March issue of this journal.

Gaillard, Gérard—LCA for agriculture

Dr. Gérard Gaillard, Leiter Forschungsgruppe Ökobilanzen, Forschungsanstalt Agroscope Reckenholz-Tänikon ART, Reckenholzstr. 191, 8046 Zürich, Switzerland; e-mail: gerard.gaillard@art.admin.ch

- My expectations are:
- Papers relating to the major challenges that agriculture is confronted with (food crisis, environmental declaration for food, climate impact reduction goals). Until now, only the challenge "bioenergy" is covered well.
- Papers reflecting the globalization of agricultural LCA research, issued from the countries concerned (not only made from Europe for Asian, South American, or African conditions) and based on a full LCA philosophy (especially on the holistic approach, which I sometimes miss).
- Papers integrating the methodological development into practice, especially in the fields LCI (field and farm emissions) and LCIA (biodiversity, water, etc.). Until now, primarily the field "system analysis" with a high emphasis on the consequential approach is covered well.

Associated to Gérard Gaillard

Kim, Seungdo—LCA for agriculture practices and biobased industrial products

Seungdo Kim, Ph.D., Michigan State University, Department of Chemical Engineering & Materials Science, 3900 Collins Road, Lansing, MI 48910-8396, Michigan, USA; e-mail: kimseun@msu.edu

The current vigorous debates on indirect land use change (*i*LUC) in the biofuel system raise the following technical issues:

1. How many acres of natural undisturbed land are converted to cropland due to biofuel production?
2. Where do the land conversion processes occur?
3. Which types of natural undisturbed land are converted to cropland?
4. Which crops are cultivated for animal feed (food) in newly converted cropland?
5. How do we differentiate changes in soil organic carbon and nitrogen dynamics associated with the land conversion event from those of crop cultivation in newly converted cropland?

Answers to the first four questions would vary with economic models, data, and assumptions used in the analyses. The land conversion process, as well as the subsequent cropping practices followed in newly converted cropland, can affect soil organic carbon and nitrogen dynamics. Given that cropland produces both feed (food) and biofuel feedstocks, it is obvious that biofuel industries cannot be held *solely* responsible for any environmental

burdens associated with crop cultivation in newly converted cropland. Thus, we must allocate the burdens associated with changes in soil organic carbon and nitrogen dynamics between the biofuel industry and animal feed (food) industry (at least). The uncertainties involved seem very large. As debates on *i*LUC proceed, we expect other uncertainties to arise. More carefully conceived studies and robust methodologies are required to reduce such uncertainties.

Hauschild, Michael Z.—LCIA of impacts on human health and ecosystems

Prof. Michael Hauschild, Ph.D., Section for Quantitative Sustainability Assessment (QSA), Department of Management Engineering (MAN), Technical University of Denmark (DTU), Building 424, Room 119, 2800 Lyngby, Denmark; e-mail: mic@ipl.dtu.dk

Human and ecotoxic impacts remain the emission-related impact categories with the largest uncertainties in life cycle impact assessment. The recent years, however, have seen promising progress in the international method development and consensus building under the UNEP/SETAC Life Cycle Initiative and elsewhere. With the advent of an international consensus model (Rosenbaum et al. 2008) with characterization factors covering a large group of substances, the stage is set for papers presenting and discussing experiences on the application of human- and ecotoxicity impact assessment in LCA.

A consensus model builds on the state of the art and, when updated, should take the recent developments into account. Papers presenting further work on methodological aspects for these impact categories will therefore be welcome in 2009.

Rosenbaum RK, Bachmann TM, Swirsky Gold L, Huijbregts MAJ, Jolliet O, Juraske R, Koehler A, Larsen HF, MacLeod M, Margni M, McKone TE, Payet J, Schuhmacher M, van de Meent D, Hauschild MZ (2008) USEtox—The UNEP-SETAC toxicity model: recommended characterization factors for human toxicity and freshwater ecotoxicity in Life Cycle Impact Assessment. Int J Life Cycle Assess 13(7):532−546

Hunkeler, David—Societal life cycle assessment

Dr. David Hunkeler, AQUA+TECH Specialties S.A., General Director, Chemin du Chalet-du-Bac 4, CP 28, 1283 La Plaine, Geneva, Switzerland; e-mail: david.hunkeler@aquaplustech.ch

The broad scope of societal assessment should not deter anyone from beginning the study. Indeed, it is less daunting than may be anticipated. For example, requirement of regional "societal inventories" actually permits one to access existing governmental and private sector databases, something that was not possible for LCA in its infancy. As is the case with the other pillars of sustainability, the selection of the appropriate functional unit and the presentation of transparent, sensitivity studies are keys to the ultimate validity of a study. Societal assessment can also help our community address the relevant thresholds with regards to certain indicators.

Jungbluth, Niels—LCA for energy systems and food products

Dr. Niels Jungbluth, ESU – services Ltd., Managing Partner, Kanzleistrasse 4, 8610 Uster, Switzerland; e-mail: jungbluth@esu-services.ch

The LCA of energy showed a successful development in the last few years. Special attention was given to LCA studies on renewable fuels. For the first time, a simplified LCA of the full chain, including biomass production, conversion, and use, will be the basis for tax exemption of agro fuels in Switzerland. The LCA studies on renewable energies show that it is necessary to include several environmental problems—such as eutrophication, acidification, toxic effects, and land use—for a comparison with fossil fuels. Simplified yardsticks such as greenhouse-gas balances led to partly wrong developments in the past. Agro fuels are produced worldwide, which makes it necessary to also include environmental problems that are not of major importance in Europe. Thus, in future research work, specific attention should be given to the life cycle impact assessment of problems such as water use, transformation of primary forests, and greenhouse-gas emissions due to land-use changes. For the life cycle inventory analysis, it is quite important to take regional differences into account and to maintain transparency for the whole documentation of LCI data. Under these prerequisites, LCA can prove to be a powerful tool for the development of future, more environmentally friendly energy systems.

Associated to Niels Jungbluth and Joerg Schweinle

Schebek, Liselotte—LCA for energy systems (associated to Niels Jungbluth); LCA for biofuels (associated to Joerg Schweinle)

Prof. Dr. Liselotte Schebek, Forschungszentrum Karlsruhe, Department of Technology-Induced Material Flows, Postfach 3640, 76021 Karlsruhe, Germany; e-mail: Liselotte.Schebek@itas-zts.fzk.de

Energy supply has always been a highly important issue, and consequently, the assessment of energy systems and energy technologies has been the focus of Life Cycle Assessment from the very beginning. Today, the dynamics of developments in energy systems has considerably accelerated: the economic growth in China and India boosts the global

demand for energy more than ever, and at the same time, the velocity of climate change requires more drastic reductions of CO_2 than we expected only some years ago. Consequently, research on novel technologies for energy efficiency and renewable energies has become an urgent issue. Some years from now, may we draw part of our energy supply from algae producing hydrogen; may novel materials we do not of know yet raise the efficiency of lighting and heating in buildings?

If so, if a novel technology penetrates the market successfully, what will be the impact on the life cycle of a technology, as well as on the economy? To answer these questions, we should not wait until a technology will be mature. LCA should be prepared to go ahead in supporting technology development: which up-stream and down-stream effects are related to a technology, how is energy efficiency interrelated to resource efficiency, which environmental impacts really matter—if we apply these classical issues of LCA on tomorrow's technologies, we might be able to shape not only technologies but sustainable energy systems.

Koehler, Annette—Water use in LCA

Dr. Annette Koehler, ETH Zurich, Institute of Environmental Engineering, Wolfgang-Pauli-Strasse 15, 8093 Zurich, Switzerland; e-mail: koehler@ifu.baug.ethz.ch

The topic of water use and depletion of freshwater resources is rapidly gaining increasing attention and, nowadays, is perceived to be as important as climate change. While water use was mainly disregarded in LCA in the past, new methodological approaches are being developed for comprehensive and simplified assessments of the water footprint. A simplistic measure of total water input is fully insufficient to provide adequate statements on water-use-related environmental performance of products and businesses. To arrive at meaningful LCA results, we, as an LCA community, need operational assessment procedures for LCI and LCIA that reflect the geographically diverse and time-variant character of freshwater resources. Providing a scientific discussion platform, we would like to invite method developers and practitioners to submit contributions to the section "Water Use in LCA." Thus, we hope to stimulate methodological advancements closing methodological gaps and give recommendations for business and industry dealing with environmental assessments of freshwater use.

Milà i Canals, Llorenç—Land use in LCA

Dr. Llorenç Milà i Canals, Life Cycle Assessment Manager, Unilever − Safety & Environmental Assurance Centre; e-mail: Llorenc.Mila-i-Canals@unilever.com

The section on "land use in LCA" was initiated 2 years ago (Milà i Canals 2007), and has seen many interesting contributions mainly focused on the methodological development required both at the inventory and impact assessment levels in order to include land use impacts in LCA. Yet, these impacts are still not commonly reported in most LCA studies, including those published in this journal. The importance of land use as a scarce resource is reflected by the growing demand for land (increased demand for food with a growing population; increased expectations to provide bioenergy and biomaterials…).

In 2009, we hope to see more papers presenting operational methods to include land use impacts in LCA and overcoming the limitations of the current approaches. Ideally, such new developments should be compared to available methods, and clarify as to how they are applicable along the life cycle (rather than focus only on agricultural land uses). In addition to further methodological development, applications of currently available methods in case studies are needed, particularly for those dealing with land-based products (food, feed, fiber and biomaterials, bioenergy, etc.).

Milà i Canals L (2007) Land use in LCA: A new subject area and call for papers (Editorial). Int J Life Cycle Assess 12(1):1

Pennington, David—EU life cycle policy and support

Dr. David W. Pennington, Action Leader, ENSURE: Environmental Assessment of European Wastes and the Sustainable Management of Resources, European Commission, Directorate General Joint Research Centre (JRC), Institute for Environment and Sustainability (IES); mailing address: T.P. 460, JRC, 21020 Ispra(Va), Italy; e-mail: david.pennington@jrc.it

EU policy and support: Life cycle thinking and assessment became mainstream in 2008 in Europe. The European Commission unveiled its life cycle-based Action Plan. This plan aims to help society move towards sustainable consumption and production. The scientific community has built the foundations that made this possible. Standards are in place and international recommendations are being established together by authoritative bodies. These provide the essential basis for confidence and coherence. Nevertheless, this can be viewed as the starting point; arguably, the birth of life cycle thinking and assessment in mainstream business and policy. I expect 2009 will therefore be an equally important year; a year of further strengthening and new insights and further novel developments for tomorrow. This journal will continue to be an important and open global forum for discussion of existing approaches, emerging recommendations, and presenting new advances (see the Corner "EU LC policy and support").

Rebitzer, Gerald—Life cycle management

Dr. Gerald Rebitzer, Director Product Stewardship, Alcan Packaging, Badische Bahnhofstr. 16, 8212 Neuhausen am Rheinfall, Switzerland; e-mail: gerald.rebitzer@alcan.com

Life cycle management (LCM) focuses on the implementation of life cycle approaches within organizations and across value chains involving several parties, also including the end consumer. Since Int J Life Cycle Assess started to focus on LCM in addition to "pure" LCA research and application (see Heinrich and Klöpffer 2002), tremendous progress was made in relation to the development of practical tools and available databases. This journal has been playing an invaluable role in fostering these developments and the necessary discussions around methods and their applications. However, in order to "mainstream" LCM in business and administration, much more research and discussion need to take place around organizational questions of LCM. The "engineering side" of LCM is quite well developed, but how to actually leverage the existing technical knowledge and entrench it into the culture of organizations is a step-change that is desperately needed for making sustainable development a reality. We hope that this journal will continue its leading role in the area of LCM by also increasingly addressing the aforementioned challenges. The current financial and economic crisis demonstrates that real-world sustainability practices are needed more than ever, not only to prevent environmental disasters, but also to create sustainable social and economic value.

Heinrich A, Klöpffer W (2002) LCM—Integrating a New Section in Int J LCA. Int J Life Cycle Assess 7 (6):315–316

Associated to Gerald Rebitzer

Matsuno, Yasunari—Life cycle management

Dr. Yasunari Matsuno, Associate Professor, Dept. of Materials Engineering, Graduate school of Engineering, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo, Japan 113-8656; e-mail: matsuno@material.t.u-tokyo.ac.jp

My main fields of interest are the application of LCA to Information Technologies (IT). Recently, the energy consumption in IT has rapidly increased. The dynamic aspect of environmental impacts caused by IT is a great challenge. In addition, methodologies related to LCA for recycling materials are of interest. Today, most materials are recycled from end-of-life products.

There are inconsistencies in the lifetime of products and the materials used in these products. Therefore, appropriately evaluating the environmental impacts of those materials is a challenging task. Linkaging LCA with material flow analysis seems to be a key for this task.

I would highly appreciate submissions on these topics to Int J Life Cycle Assess.

Associated to Gerald Rebitzer

Schmidt, Wulf-Peter—Life cycle management

Dr.-Ing. Wulf-Peter Schmidt, Adjunct Professor, Ford Werke GmbH, Vehicle Environmental Engineering—D-E479/W03, Manager Sustainability, Henry Ford Strasse E/R-201, 50725 Köln, Germany; e-mail: wschmi18@ford.com

Life cycle approaches can play a vital role to facilitate a constructive interaction between all life cycle stakeholders of product systems. On this basis, all actors can effectively contribute in an integrated approach towards the overall improvement of specific product systems. To enable effective but also efficient actions, the concept cannot be limited to environmental aspects, but we need to consider all economic and societal questions. These two aspects—(1) the interaction-related issue as well as (2) the economic and societal issues—need further elaboration. Along these lines, best practices should further be established in the years to come, and this journal will serve as a sounding board for the scientific debate around these topics.

Associated to Gerald Rebitzer

Swarr, Thomas—Life cycle management

Thomas Swarr, Rensselaer, Lally School of Management and Technology, Adjunct Professor, Shultas Pl, 06114 Hartford, Connecticut, USA; e-mail: swarrt@rpi.edu

Life cycle assessment provides the basic information corporations need to understand the environmental impacts of their products and operations. A policy focus on sustainable production creates two fundamental challenges to using this information to effectively manage life cycle impacts. The dynamics of decision making of diverse actors within a particular product chain can result in unanticipated consequences that negate the benefits of a corporate sustainability initiative, e.g., rebound effects. Secondly, companies must necessarily manage according to the economic logic of global product chains. The ultimate impacts are grounded in local geographic regions. There is no guarantee that well-intentioned corporate initiatives based on this global logic will achieve the outcomes desired in a specific region given the particular combination of product chains that happen to intersect in that area. Overcoming these challenges will require new forms of collaboration between corporations and civil society to

define and create innovative business models for sustainable consumption.

Schweinle, Joerg—Wood and other renewable resources

Dr. Joerg Schweinle, Johann Heinrich von Thunen-Institute (vTI), Institute of Forest Based Sector Economics, Postbox 80 02 09, 21002 Hamburg, Leuschnerstr. 91, 21031 Hamburg, Germany; e-mail: joerg.schweinle@vti.bund.de

Associated:
Nebel, Barbara[1] and Werner, Frank[2]

[1]Barbara Nebel, Ph.D., Senior Scientist, Scion, Built Environment Team, Private Bag, 3020 Rotorua, New Zealand; e-mail: Barbara.Nebel@scionresearch.com
[2]Dr. Frank Werner, Environment & Development, Waffenplatzstrasse 89, 8002 Zurich, Switzerland; e-mail: frank@frankwerner.ch

Despite the current economic crisis, the global focus cannot be shifted away from the need to mitigate climate change. The substitution of nonrenewable raw materials and fossil fuels with renewables is without doubt one of the key strategies to abate climate change. In this context, we have highlighted some topics that need to be addressed by the LCA community, in several editorials in Int J Life Cycle Assess (Schweinle 2007; Werner and Nebel 2007) as well as in a preface (Schweinle 2008). We invite you to revisit these texts; papers on those important topics are still very welcome.

The recent debate on biofuels, however, has clearly demonstrated the importance of showing the full picture of the environmental impacts of renewables. Land use, land use change, water, and biodiversity-related impacts need to be part of the assessment of products based on wood or other biomass. In this respect, the subject areas "Wood and other renewable resources," "LCA for agriculture," "Land use in LCA," and "LCA and water" are closely connected. Papers that address methodological aspects and/or case studies that provide a more holistic assessment on wood and other renewable materials would therefore be appreciated very much.

Schweinle J (2007) Wood & other renewable resources: A challenge for LCA. Int J Life Cycle Assess 12(3):141–142
Schweinle J (2008) Preface: 'Biofuels' by Jörg Schweinle. Int J Life Cycle Assess 13(3):184
Werner F, Nebel B (2007) Wood & other renewable resources. Int J Life Cycle Assess 12(7):462–463